non-small-cell lung cancer (NSCLC) using gefitinib or docetaxel. Probability distributions for adverse events and life expectancy were obtained from the INTEREST study. We used a docetaxel chemotherapy cost-study at ISSSTE and for gefitinib we used the drug's institutional price. Health state utility values for calculating QALYs (Quality Adjusted Life Years) were derived from a recently published study done with UK patients. A 3% annual discount rate was applied on a monthly basis to all costs. Finally, a probabilistic sensitivity analysis was made varying the cost of chemotherapy. The model was run 25 times with 500 patients in each arm. Results are presented in US dollars with an exchange rate of 13.5 MXN pesos for 1 US dollar. **RESULTS:** There was no clinical difference in life expectancy between gefitinib (10.25 months) and docetaxel (10.14 months). Average QALY for gefitinib cohort was 0.487 (95% CI, 0.437 – 0.537) and for chemotherapy cohort was 0.438 (95% CI, 0.388 – 0.488). The average cost per patient treated with gefitinib was $12,103 (95% CI, $11,916 – $12,290) and with docetaxel was $20,076 (95% CI, $19,866 – $20,286). The acceptability curve shows a 100% dominace of gefitinib over docetaxel, after a chemotherapy price of $1,333. **CONCLUSIONS:** Gefitinib is an alternative therapy for second line treatment of NSCLC that dominates docetaxel chemotherapy, in terms of quality of life related to reduced presence of adverse events, at a lesser cost to the institution.

PCN73

USING SHORT-TERM RESPONSE TO PREDICT LONG-TERM OUTCOMES IN PATIENTS WITH IMATINIB-RESISTENT OR IMATINIB-INTOLERANT CHRONIC MYELOID LEUKAEMIA

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OBJECTIVES: Chronic myelogenous leukaemia (CML) is a progressive disease associated with a significant burden on both the patient and the health care provider. Although durable response from imatinib is achievable for many patients, some develop resistance or intolerance. In these patients, other tyrosine kinase inhibitors (TKIs), such as dasatinib and nilotinib are treatment options. This study uses outputs from recent clinical trials evaluating TKIs to predict the long-term economic and cost outcomes associated with different levels of best response. **METHODS:** A Markov model was developed to estimate the costs and health outcomes associated with chronic, accelerated and blast phase CML. Short-term response was defined as 'no response' (NR), 'complete haematological response' (CHR), partial cytogenetic response (PCR) and complete cytogenetic response (CCR). Resource use and quality-adjusted life year (QALY) scores were stratified according to the patient's current health status and response level. **RESULTS:** Patients in the chronic phase who achieve no response are estimated to experience a total of 1.50 QALYs and incur costs of ≤57,867 over their lifetime. Those who achieve CHR, PCR and CCR experience 3.47, 7.31 and 10.17 QALYs, and costs of ≤62,617, ≤66,499 and ≤67,117 respectively. In the accelerated phase, the total number of QALYs for the NR, CHR, PCR and CCR groups were 0.71, 1.70, 1.57 and 4.10 respectively. For the same groups, the lifetime costs were ≤35,273, ≤35,850, ≤35,886 and ≤51,693. In the blast phase, the QALY outcomes for the four groups were 0.18, 0.41, 0.63 and 1.46, whilst the costs were ≤13,252, ≤7,109, ≤10,993 and ≤25,501 respectively. **CONCLUSIONS:** There is a strong apparent relationship between short-term response to treatment and long-term outcomes in CML. These findings are likely to be useful in assessing the cost-effectiveness of existing treatments, whose short-term response is known, but where long-term data are currently unavailable.

PCN74

COST UTILITY OF POSACONAZOLE VERSUS FLUCONAZOLE/ ITRACONAZOLE THERAPY IN THE PROPHYLAXIS AGAINST INVASIVE FUNGAL INFECTIONS AMONG HIGH-RISK NEUTROPENIC PATIENTS IN MEXICO

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OBJECTIVES: To estimate the cost effectiveness of Posaconazole versus fluconazole/ itraconazole therapy in the prophylaxis against invasive fungal Infections among high-risk neutropenic patients in Mexico. **METHODS:** A previously validated Markov model was used to compare the projected lifetime costs and effects of two theoretical groups of patients, one receiving Posaconazol and the other receiving fluconazole/itraconazole. The model estimates total costs, numbers of IFIs, and QALY per patient in each prophylaxis group. The model was extended with one-month Markov cycles in which mortality risk is specific to the underlying disease. Data on the probabilities of IFI were obtained from Study Protocol PO1899. Drug costs were taken from average wholesale drug reports for 2008. Cost and health effects were discounted at 5%. The analysis was conducted from the Mexican health care perspective using 2008 unit cost prices. **RESULTS:** Our model projects an accumulated cost to the Mexican health care system per patient receiving the Posaconazol regimen of US$7463 compared to US$5634 for the fluconazole/itraconazole regimen. This results in an incremental cost of –(US$1829) per patient. The accumulated discounted effect is 3.13 life years or 2.25 quality adjusted life years (QALYs) per patient receiving Posaconazol, compared to 3.13 life years or 2.13 QALYs per patient receiving fluconazole/itraconazol. This translates into an incremental effect of posaconazole over fluconazole/itraconazole of 0.17 life years gained (LYG) or 0.12 QALYs gained. The corresponding incremental cost effectiveness ratio (iCERs) is -(US$15,125) per QALY. Probabilistic sensitivity analysis tested numerous assumptions about the model cost and efficacy parameters and found that the results were robust to most changes. **CONCLUSIONS:** The use of temozolomide in place of fluconazole/itraconazole for the prophylaxis against invasive fungal Infections among high-risk neutropenic patients is likely to be cost saving. These conclusions are supported by the use of conservative assumptions and sensitivity analyses.

PCN75

THE IMPACT OF NEUTROPENIC COMPLICATIONS ON SHORT-TERM DISABILITY IN PATIENTS WITH CANCER RECEIVING CHEMOTHERAPY

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OBJECTIVES: Patients receiving myelosuppressive chemotherapy are at risk for chemotherapy-induced neutropenic complications (CINC). The study objective was to examine the impact of CINC, defined as neutropenia with fever or infection, on short-term disability (STD) among cancer patients receiving chemotherapy. **METHODS:** Patients with cancer undergoing chemotherapy were extracted from Thomson Reuters MarketScan® Commercial Database and Health and Productivity Management Database. Patients were required to have at least 6 months continuous enrollment before the index date (first chemotherapy claim) and at least 30 days continuous enrollment post-index date, full-time employment and eligibility for STD. Patients with ICD-9 codes for neutropenia and fever or infection and that had evidence of chemotherapy within 30 days prior were defined as having CINC. Propensity score (PS) matching was conducted for "CINC" and "non-CINC" patients based on demographic and clinical characteristics, including chemotherapy class and use of highly myelosuppressive chemotherapeutic agents. Subsequent multivariate regressions were conducted on PS-matched cohorts to estimate the marginal impact of CINC: an Ordinary Least Squares Model on STD days, a generalized linear model on indirect cost associated with STD, and a logistic regression model on whether a patient used any STD days during a month. **RESULTS:** A total of 280 CINC and 280 non-CINC patients were PS-matched. Compared with matched non-CINC patients, CINC patients on average experienced 0.9 more STD day (3.2 vs. 2.3, p = 0.046) which led to $156 more in indirect costs ($549 vs. $394, p = 0.050) per month. After multivariate adjustment, CINC patients were 35% (p = 0.121) more likely to experience at least one STD day, experienced 1.0 more STD day (p = 0.029), and incurred $200 more in indirect cost (p = 0.016) per month. **CONCLUSIONS:** Patients with CINC experience significantly greater STD days than patients with no neutropenic complications from cancer chemotherapy. Efforts that may prevent CINC can potentially have a beneficial impact on work absenteeism.

PCN76

REVISITING CHERNOBYL: THE LONG-RUN IMPACT OF THE NUCLEAR ACCIDENT ON LABOR MARKET OUTCOMES

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OBJECTIVES: The accident at the Chernobyl nuclear power plant in 1986 released an enormous amount of radioactive materials which spread over the territories of Ukraine, Belarus, Russia and other European countries. The damage caused to the environment, economy and, most importantly, to human health has been challenging to estimate. In fact, there is no scientific agreement on the severity of the Chernobyl aftermath. The purpose of our paper is to investigate the long-run impact of the tragedy on the labor market outcomes of the Ukrainian population. **METHODS:** Specifically, using data from 2001 household survey and a self-reported measure of well-being, we estimate the impact of the Chernobyl accident on individual earnings. In addition, we identify a substantial gender wage gap existing in the Ukrainian labor markets. We use the Oaxaca decomposition technique to examine the wage gap in more detail. **RESULTS:** We find that those individuals whose health has suffered as a result of the accident receive on average 5% lower wages, after controlling for other characteristics. **CONCLUSIONS:** We find that a large portion of the wage gap is "unexplained" and may be attributed to discrimination against women; in addition, the health effects of the Chernobyl accident explain a significant portion of the gender wage inequality.

PCN77

HEALTH CARE RESOURCE UTILIZATION ASSOCIATED WITH ESCALATING IMATINIB VERSUS SWITCHING TO DASATINIB IN PATIENTS WITH CHRONIC MYELEGENOUS LEUKEMIA

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OBJECTIVES: After initial therapy with imatinib, chronic myelogenous leukemia (CML) patients who do not completely respond may require dose escalation or switching to another BCR/ABL kinase inhibitor to achieve the desired response. This study compared health care resource utilization associated with either escalation of imatinib dose or switching to dasatinib. **METHODS:** Two large administrative claims databases were combined (MarketScan and Ingenix Impact, January 1999–March 2008) to identify patients diagnosed with CML (ICD-9 code: 205.1). Patients initiated with imatinib who were continuously enrolled 6 months prior to and at least one month following their first dose increase or switch to dasatinib were selected. Patients who switched to dasatinib before reaching imatinib 800 mg/day (switchers) and the non-